AMROTEC®

X-1 SERIES PC SUITE

Distributor Tool Version

User Manual and Installation Guide

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Chapter 1 Introduction

About X-1 Series PC SUITE

X-1 Series PC SUITE（Distributor Tool Version） is a Windows application, which can communicate with the X-1 series currency counter devices through USB protocol. X-1 Series PC SUITE allows distributors to check the connected device information, perform the advanced sensor calibration, capture sample data of the new counterfeit or genuine banknote information, and upgrade the MA detection module as well as the system/UI firmware.

Abbreviations and Acronyms

USB	Universal Serial Bus
IR	Infrared
MG	Magnetic
MB	Megabyte
MA	MA Detection Module
PC	Personal Computer
X-1	X-Series Currency Discriminator

Chapter 2 System Requirement

Minimum System Requirement

To install and run X-1 PC SUITE（Distributor Tool Version） correctly, please check the minimum system requirement as listed below:

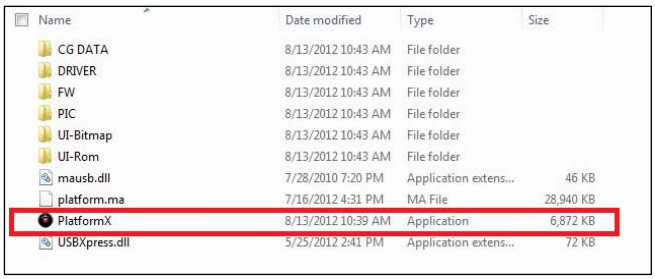
Item	Minimum System Requirement
Operating System	Windows® 98[1]/ME/2000[2]/XP
CPU	800 MHz Intel® Pentium III
Memory	256 MB RAM
Free Disk Space	60 MB
Ethernet Adapter	One Windows® compatible network card
Connection Interface	USB 1.1 or 2.0 port

[1] Only Windows® 98 second edition — Windows® 98 SE
[2] Only Windows® 2000 with service pack 1

Chapter 3 Installation

X-1 Series PC SUITE Installation

An installation CD or zip file is provided for X-1 Series PC SUITE（Distributor Tool Version）. In case of a CD, double-click on the installation file *"Setup.exe"*, and follow the instructions on the screen to complete the installation process. In case of ZIP file (Zip or RAR), extract the main folder to your desktop or a location where you can easily remember. Click on *"PlatformX"* in the folder to execute and open the PC suite. If you are asked to or require to reboot the system during installation, please follow the instructions on the screen and finish the installation process.


Name
Date modified
Type
Size
CG DATA 8/13/2012 10:43 AM File folder
DRIVER 8/13/2012 10:43 AM File folder
FW 8/13/2012 10:43 AM File folder
PIC 8/13/2012 10:43 AM File folder
UI-Bitmap 8/13/2012 10:43 AM File folder
UI-Rom 8/13/2012 10:43 AM File folder
mausb.dll 7/28/2010 7:20 PM Application extens... 46 KB
platform.ma 7/16/2012 4:31 PM MA File 28,940 KB
PlatformX 8/13/2012 10:39 AM Application 6,872 KB
USBXpress.dll 5/25/2012 2:41 PM Application extens... 72 KB

[Prior connecting the X-1 device to PC, please make sure to complete the software installation first]

If your system operating system is Windows® XP, an installation warning dialog may pop-up asking if operator wants to install uncertified software to the system, as shown in figure 3-1. Please click on “Continue Anyway” to complete the whole installation process.

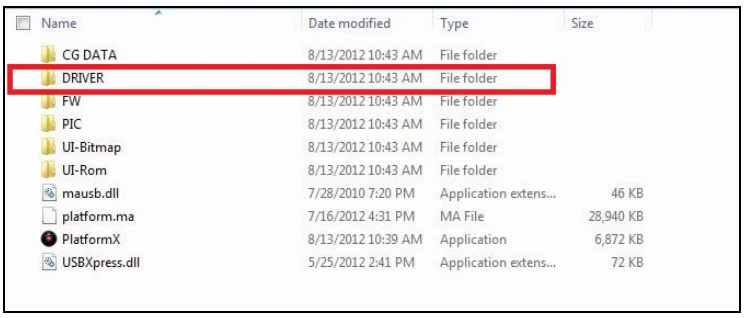
Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Figure 3-1, the warning dialog for the uncertified driver

Connect the X-1 Device thru USB

Windows® 98/ME/2000

To connect the X-1 device to your computer through USB port, please ensure to install the X-1 Series PC SUITE to your system first. When X-1 is connected and first Powered on, your PC operating system will automatically detect the X-1 USB device and complete the driver installation. If your are using PC Suite loaded from our ZIP files, then, please locate the USB driver file in the PC Suite Folder.


Name
Date modified
Type
Size
CG DATA 8/13/2012 10:43 AM File folder
DRIVER 8/13/2012 10:43 AM File folder
FW 8/13/2012 10:43 AM File folder
PIC 8/13/2012 10:43 AM File folder
UI-Bitmap 8/13/2012 10:43 AM File folder
UI-Rom 8/13/2012 10:43 AM File folder
mausb.dll 7/28/2010 7:20 PM Application extens... 46 KB
platform.ma 7/16/2012 4:31 PM MA File 28,940 KB
PlatformX 8/13/2012 10:39 AM Application 6,872 KB
USBXpress.dll 5/25/2012 2:41 PM Application extens... 72 KB

Windows® XP

To connect the X-1 device to your computer through USB port, please ensure to install the X-1 Series PC SUITE to your system first. When X-1 device is connected and Powered on, your PC operation system will automatically detect the X-1 USB device and pop-up a message stating “Found New Hardware Wizard.” Just click on the “Next” button and then click “Continue Anyway” on the uncertified warning dialog to finish the driver installation for X-1 device.

The entire process of hardware driver installation process is described by the following figures :

Figure 3-2, Windows® XP detects the X-1 device

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Masterwork Automodules Technology - USB Connector
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel
Choose this to locate USB file in PC SUITE Folder if direct installation

USB Driver file on your PC Suite Folder

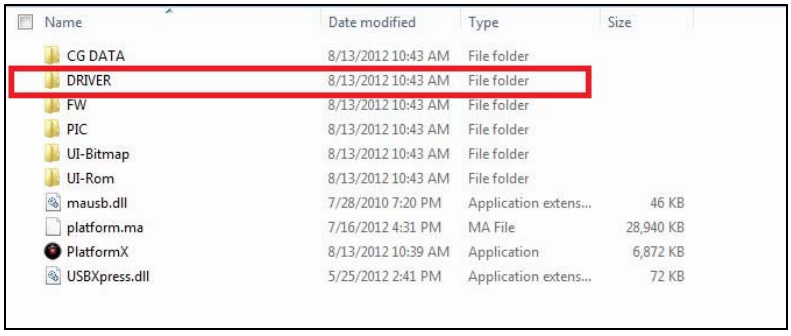

Name
Date modified
Type
Size
CG DATA 8/13/2012 10:43 AM File folder
DRIVER 8/13/2012 10:43 AM File folder
FW 8/13/2012 10:43 AM File folder
PIC 8/13/2012 10:43 AM File folder
UI-Bitmap 8/13/2012 10:43 AM File folder
UI-Rom 8/13/2012 10:43 AM File folder
mausb.dll 7/28/2010 7:20 PM Application extens... 46 KB
platform.ma 7/16/2012 4:31 PM MA File 28,940 KB
PlatformX 8/13/2012 10:39 AM Application 6,872 KB
USBXpress.dll 5/25/2012 2:41 PM Application extens... 72 KB

Figure 3-3, The “Found New Hardware Wizard” dialog

Hardware Installation
The software you are installing for this hardware:
Masterwork USB Device
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Figure 3-4, the warning dialog for the uncertified driver

Figure 3-5, install the necessary files into system

Figure 3-6, finish the hardware installation process

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Chapter 4 Quick Start for X-1 PC SUITE

Launch the Program

X-1 PC SUITE software can be launched after software is successfully installed and X-1 device is installed via USB driver. PC SUITE will automatically detect if any X-1 device is connected to the system. Once an X-1 device is found, PC SUITE will show “Detect and connect to your XX device!” in its status bar, as shown in figure 4-1. If X-1 PC SUITE can not recognized any X-1 device connected, the status bar will show an warning message as “Warning: Cannot detect any XX device in your system”, as shown in figure 4-2.

Further, X-1 PC SUITE requires a module (MA Database file) for checking the model information and settings of each device and this module is usually included in the installation software provided. If PC SUITE cannot locate the Database file in the system, PC SUITE will pop-up another warning dialog, as shown in figure 4-3.

Figure 4-1, X-1 Series PC SUITE has successfully connected to the device

Figure 4-2, X-1 Series PC SUITE cannot find any X-1 device connected

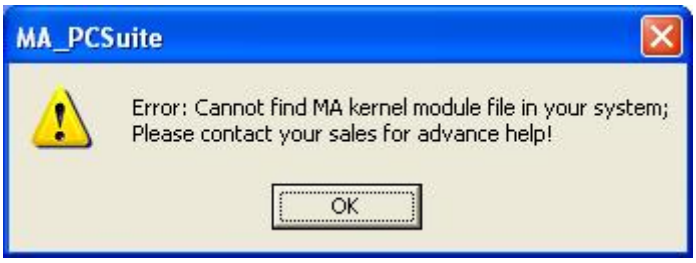

Figure 4-3, Warning dialog for no Database found

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Section 1：Product Information

The first section item of X-1 PC SUITE is the “Product Information.” This section shows information of the connected X-1 currency counter.

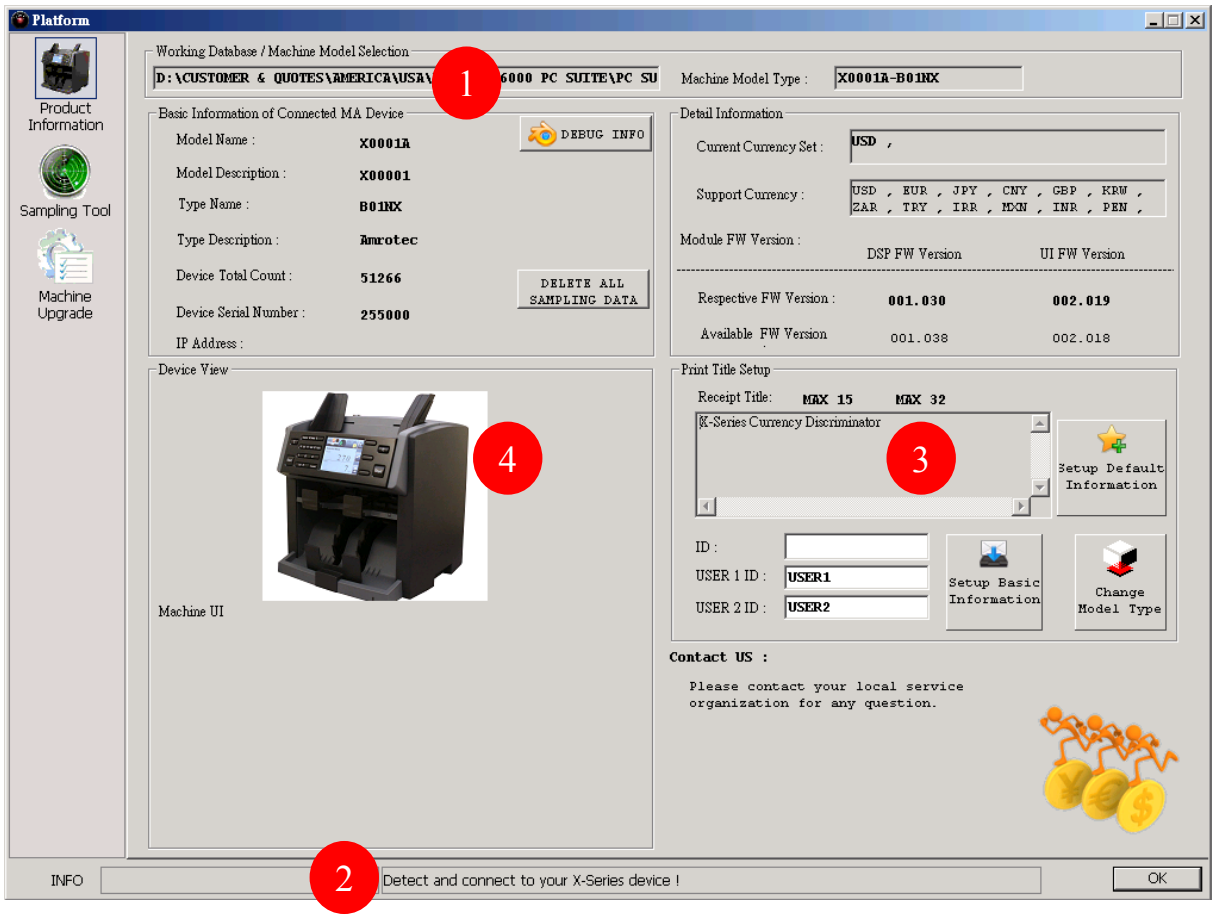


Figure 4-4, the “Product Information” Page of X-1 Series PC SUITE

1 The Database file is listed here. If X-1 PC SUITE unable to find the Database file , the error message is also display here.

2 This area shows the status and info of your connected X-1 device, such as it's type name, serial number, total banknote count, description and its preview photo. The purpose of the photo image is to make sure that the device detected is the same one as operator has connected.

3 X-1 devices can be connected with Dot matrix or thermal printer to provide the detailed counting results. If printer is connected, X-1 PC SUITE

can allow users to setup their name of institutions and displays on the printed receipt. Each Name is limited to: left side. Max 15 lines ; Max 32 char/line.

4 X-1 PC SUITE shows the information and the photo image of the selected product. Each time when AMROTEC or its factory releases a new product, the new released patch of X-1 Series PC SUITE will be provided for that particular model. In order to obtain new product information of AMROTEC, please contact AMROTEC.

Section 2：Sampling Tool

The second section item of X-1 PC SUITE is the “Sampling Tool.” After entering to this section item, it changes to Sampling screen ready for sampling operation. Using this sampling mode, operator can use the connected X-1 device to record information of new currency or denomination issued and/or the new counterfeit into MA Database file . After sending these sampling data back to AMROTEC or factory, the R&D team process those data and make necessary improvement to device software.

[In this Sampling operation mode, operators are suggested to count a stack of banknotes mixed with those rejected banknotes at a time for sampling].

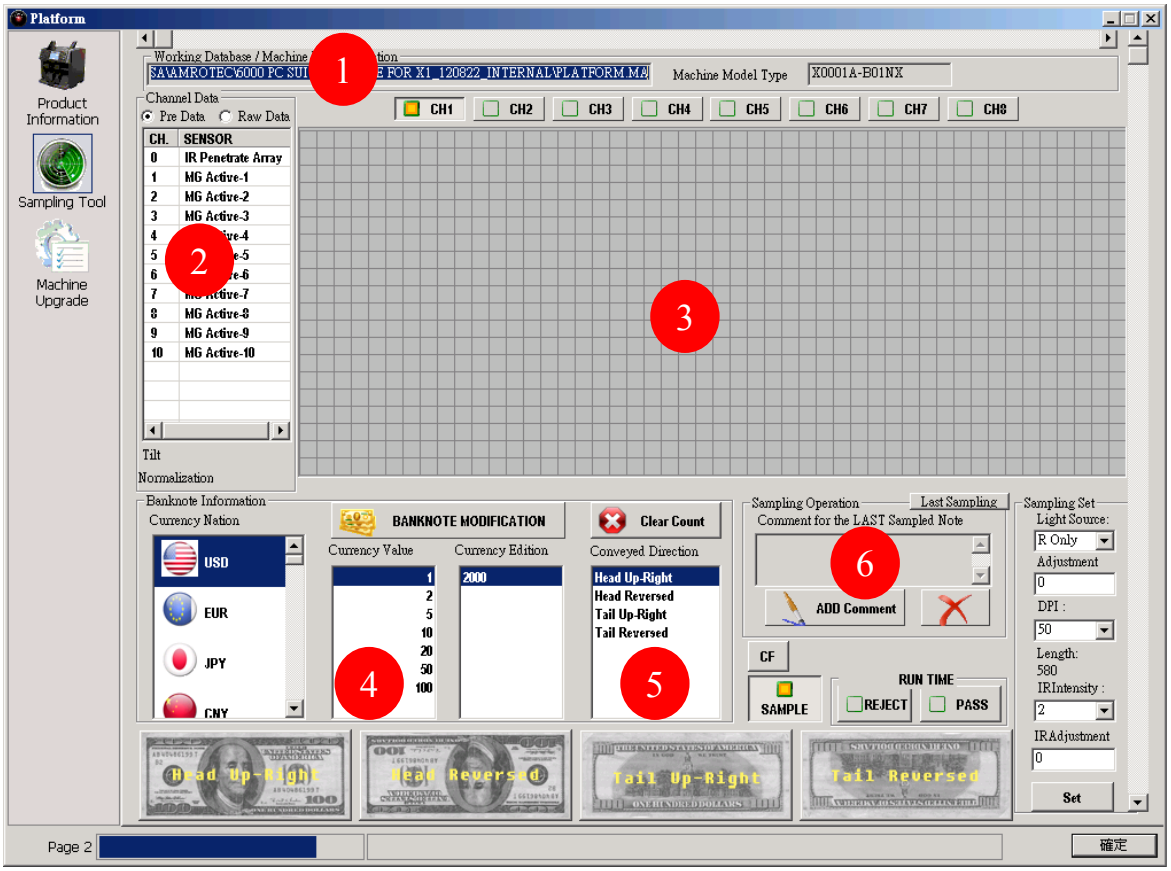


Figure 4-5, the “Sampling Tool” Page of X-1 Series PC SUITE

Explanation of the Screen:

1 The Database file is listed here. If X-1 PC SUITE is unable to find the Database file , the error message is also shown here.

2 All sensor channels are listed here. The each sensor type is also shown.

3 The grid-area shows the read-in data curve generated by the sensor of each channel.

4 Before placing banknotes or counterfeit notes onto the hopper of the connected device to start sampling process, operator should specify the related information about the target sample. In the "Banknote Information" area, please use the drop-down menu to specify the Nation, Value and Edition of the target sample note.

5 Further, please also specify how the sample note will be feed into the connected device before starting the sampling process. In the drop-down menu here, you can specify if the banknote is inserted by "Head Up-Right", "Head Reversed", "Tail Up-Right" or "Tail Reversed" side.

5 In addition, after sampling of banknotes, operator can add comment here for AMROTEC and also for each customer site for future reference. For example, a genuine bank note is having false alarm from 2nd and 3rd sides. In this situation, operator can add "USD100, genuine, false alarm for 2nd and 3rd side" in this bar.

Sampling Process:

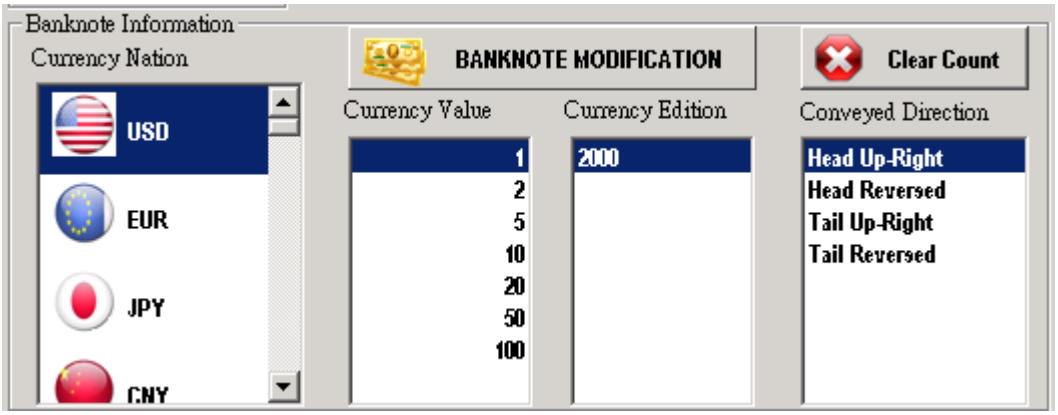
Once the X-1 machine is connected to PC Suite, please click and enter into the Sampling Tool section page (Figure 4-5).

1. Proceed to bottom side of the screen "Banknote Information" and make the below selection before perform sampling task.
   a. Select on the currency for sampling on the "Currency Nation" column.

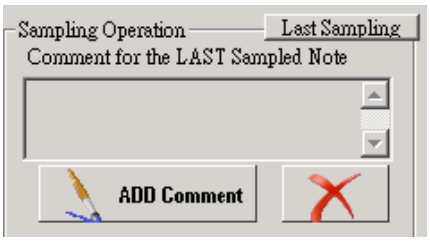
b. Select on the denomination for sampling on the “Currency Value” column.

c. Select on the issue version for sampling on the “Currency Edition” column.

d. Select on the orientation for sampling on the “Conveyed Direction” column.



2. Leave comments in the area of “Comment for the LAST Sampled Note” if a special condition/note is necessary.



3. Select on one of the sample capturing mode

- **SAMPLE:** sample genuine banknote with high resolution.
- **SAMPLE + CF:** sample counterfeit banknote with high resolution.
- **REJECT:** sample rejected banknotes (mainly False Alarm or Image error)
- **PASS + CF:** sample those accepted real counterfeits notes (suggested to use during mass testing.)

Once you select you desire sample capturing mode as above, respective message will pop up on the screen. See examples of pop-up,

Press **"YES'** to proceed to sampling.

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4. Sampling starts when banknotes are placed on hopper. When in REJECT mode, it is suggested to mix-in rejected banknotes (due to False alarm or image error) into a bundle and run through. Machine will automatically capture sampling data for those false alarm / rejected notes and image error notes and save to a folder. Once finished sampling banknotes, close the platform.

5. Go to the PC SUITE desktop folder that was created upon extracting the zip file or (in case of CD installation) program files on your PC and locate the PC Suite program.

6. Zip the entire folder “2dsample” and the file “platform.ma” together and send to AMROTEC.

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Section 3：System Upgrade

The third section item of X-1 PC SUITE is the “Machine Upgrade.” This section page allows operator to upgrade the system firmware, user interface and detection module of the connected X-1 device.

At this section page, X-1 PC SUITE displays software version information of the connected device. Besides, it shows the most current and appropriate software version according to the connected device type. If there is (are) new software package(s) released, X-1 PC SUITE will show a message on the screen warning operator to upgrade the outdated software.

In the following example, as shown in figure 4-6, the firmware of the connected device is outdated and newest firmware of version 002.088 can be loaded by pressing the “upgrade” button.

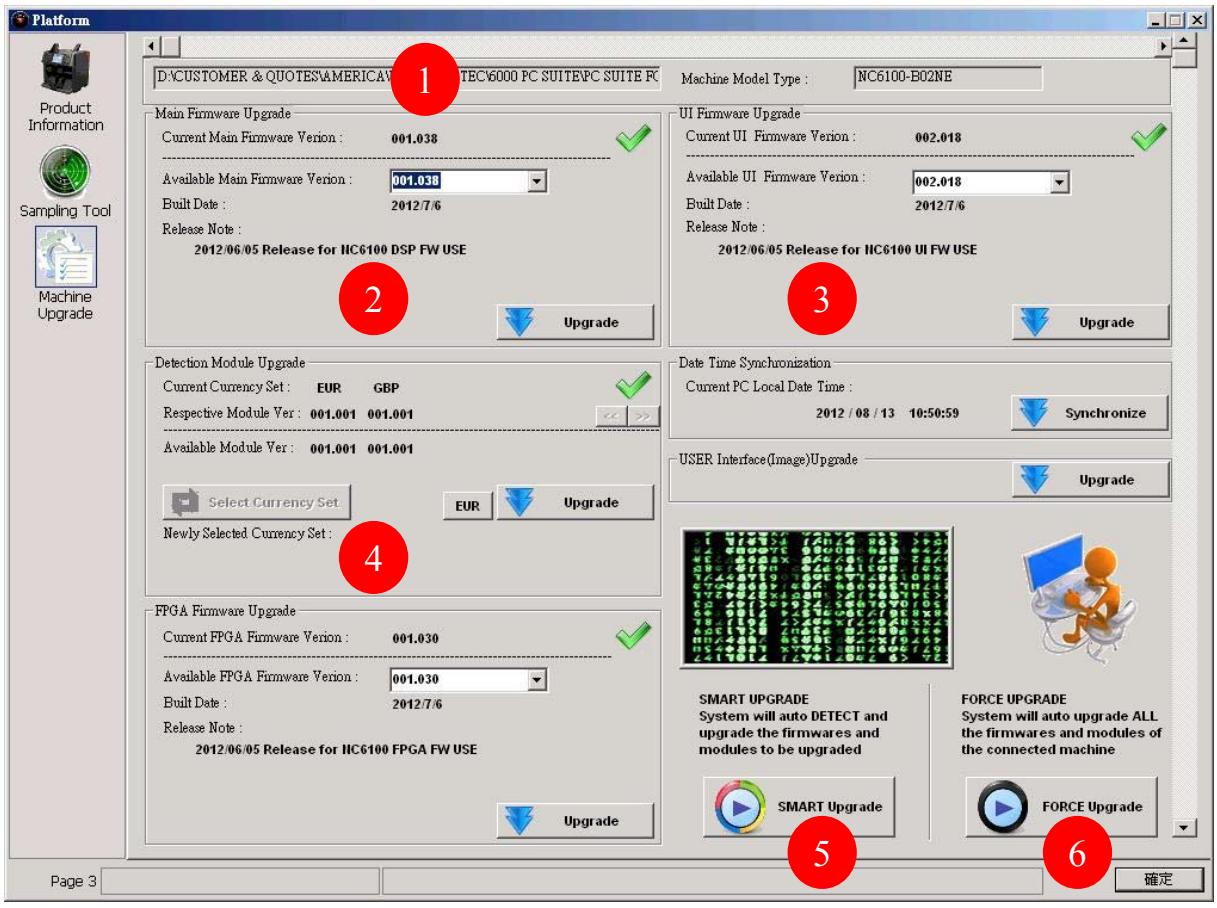

Figure 4-6, the “System Upgrade” Page of X-1 Series PC SUITE

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1 The Database file is listed here. If X-1 Series PC SUITE couldn't find the Database file, the error message is also shown here.

2 The current **Main Firmware Version** of the connected device is shown here as well as the latest available and appropriate versions of firmware. In addition, the software creation date and release note is also shown here according to the selected firmware package in the drop-down menu. Typically, downloading the system firmware package with versions older than or equal to the current version is not permitted. The warning dialog will prompt the operator for confirmation.

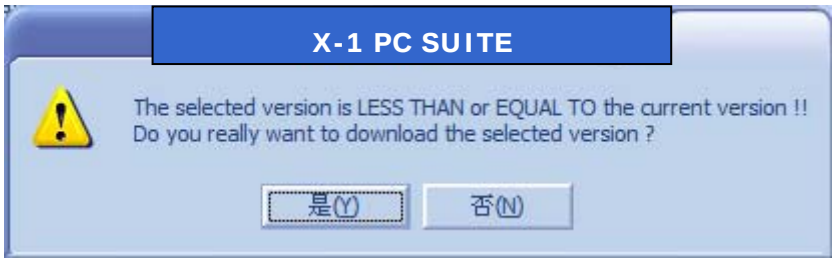

X-1 PC SUITE
The selected version is LESS THAN or EQUAL TO the current version !!
Do you really want to download the selected version ?
是(Y)
否(N)

Figure 4-7, the warning dialog for downloading older version software

3 The current **User-Interface (UI Firmware) version** of the connected device is shown here as well as the latest available and appropriate versions of UI packages. In addition, the creating date and release note will also be shown here according to the selected user interface package in the drop-down menu. Typically, downloading the system firmware package with versions older than or equal to the current one is not permitted. The warning dialog will prompt the operator for confirmation.

4 The current **Detection Module (Image)** version and its currency combination of the connected device are shown here as well as the latest available and appropriate versions of UI packages. In addition, the creating date and release note will also be shown here according to the selected user interface package in the drop-down menu. Typically, downloading the system firmware package with versions older than or equal to the current one is not permitted. The warning dialog will

prompt the operator for confirmation.

5 Smart Upgrade: System will auto detect and upgrade the firmware and modules to be upgraded. This feature is not yet available.

5 Force Upgrade: System will auto upgrade all the firmware and modules of the connected machine.

Only in one instance, the “Select Currency Set” button will be enabled when X-1 device is connected, as shown in figure 4-8. It implies that the connected X-1 device has not been assigned a software detection module yet. Operator then can have option to select the currency combination and download the combined detection module to the device. When the button is pressed, the “Select Currency Set” will pop up asking operator to choose the currencies. The number of currencies that operator can choose is depending on the connected model and hardware configuration. Please contact your service provider or sales representative for further information.

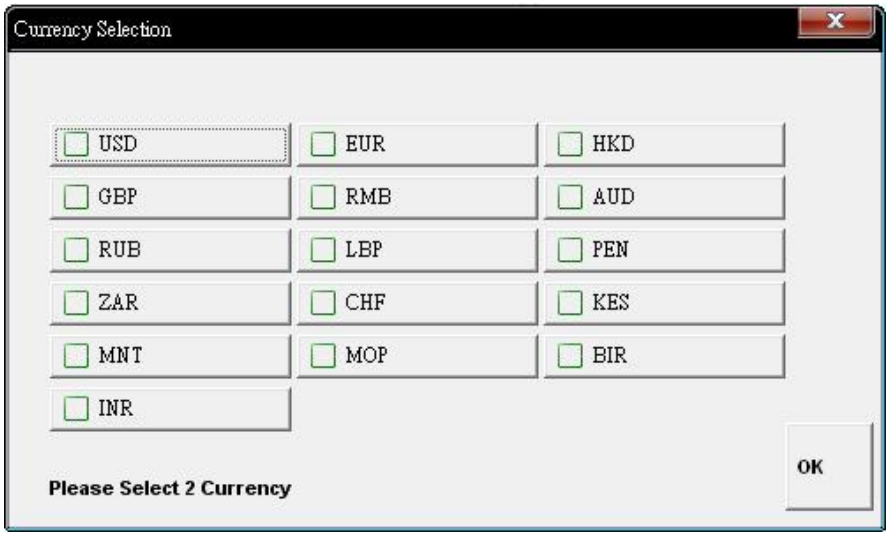


Figure 4-8, the currency combo selection dialog.

- **System upgrade sequence**

Please follow the steps as below in order to upgrade the system correctly.

X- 1 : 3 → 2 → 4

Trouble Shooting

★ System Crash while executing X-1 PC SUITE !

Solution：

For most available operating systems, like Windows® XP/2000/ME/98, X-1 PC SUITE can be executed and run normally after a successful installation, however, if client's operating system is unreleased or different version of Windows® XP, then that version may cause X-1 PC SUITE to crash during installation.

Please follow the below steps to fix this system crush:

(1) The crash error message shown on screen should be like this:

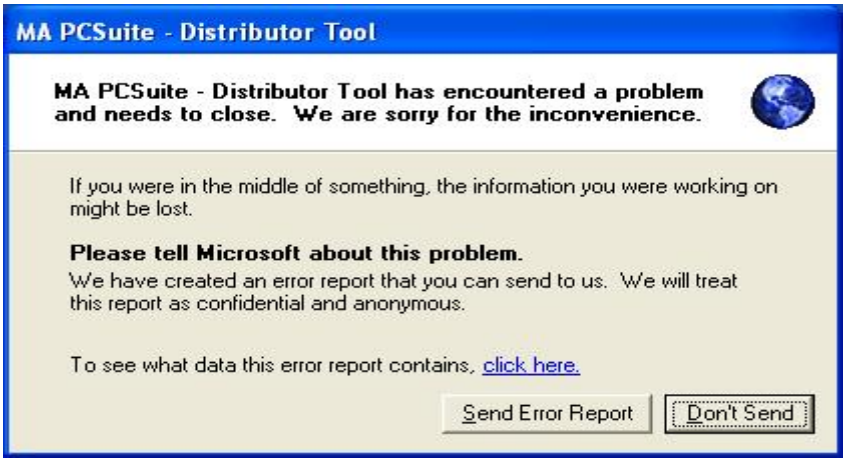

MA PCSuite - Distributor Tool
MA PCSuite - Distributor Tool has encountered a problem and needs to close. We are sorry for the inconvenience.
If you were in the middle of something, the information you were working on might be lost.
Please tell Microsoft about this problem.
We have created an error report that you can send to us. We will treat this report as confidential and anonymous.
To see what data this error report contains, click here.
Send Error Report
Don't Send

Figure A1, The crash error of X-1 Series PC SUITE

(2) Please go to the system control panel and click on "Date, Time, Language, and Regional Options".

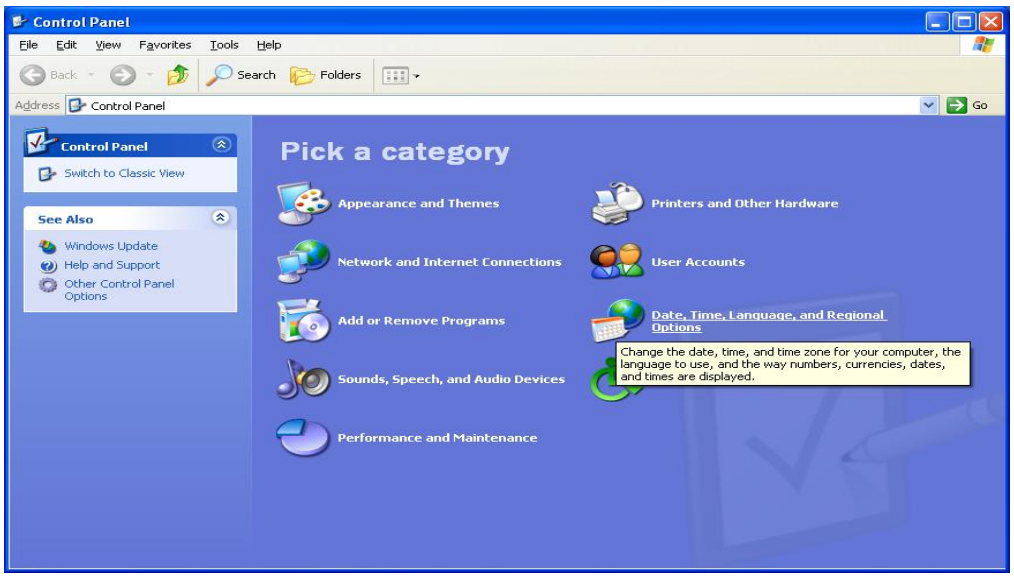

Control Panel
File Edit View Favorites Tools Help
Back Search Folders
Address Control Panel
Go
Control Panel
Switch to Classic View
See Also
Windows Update
Help and Support
Other Control Panel Options
Pick a category
Appearance and Themes
Printers and Other Hardware
Network and Internet Connections
User Accounts
Add or Remove Programs
Date, Time, Language, and Regional Options
Change the date, time, and time zone for your computer, the language to use, and the way numbers, currencies, dates, and times are displayed.
Sounds, Speech, and Audio Devices
Performance and Maintenance

Figure A2, Windows Control Panel

(3) Then, click on “Regional and Language Options”.

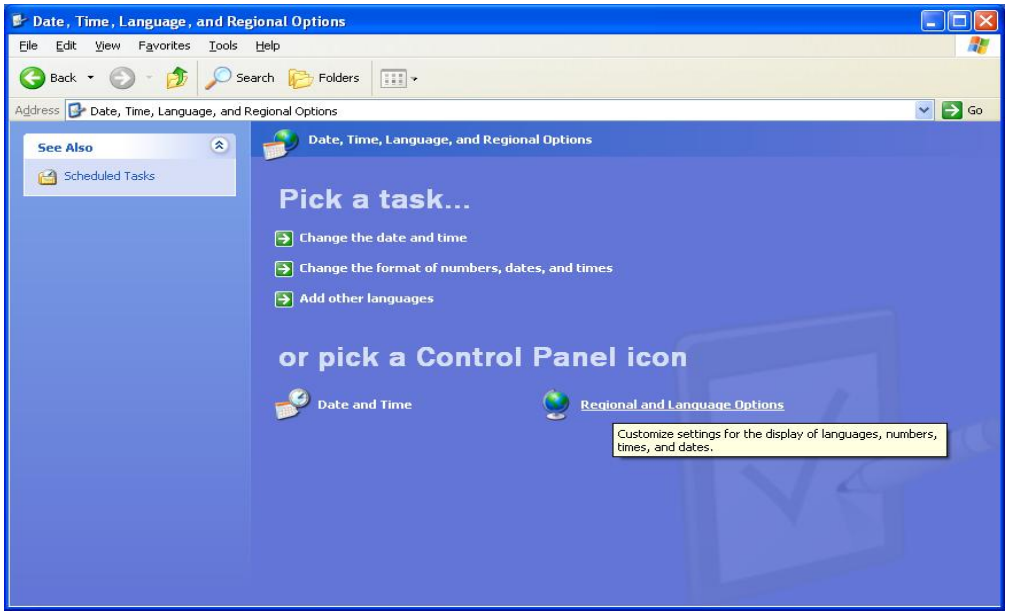

Date, Time, Language, and Regional Options
File Edit View Favorites Tools Help
Back Search Folders
Address Date, Time, Language, and Regional Options
Go
See Also
Scheduled Tasks
Date, Time, Language, and Regional Options
Pick a task...
Change the date and time
Change the format of numbers, dates, and times
Add other languages
or pick a Control Panel icon
Date and Time
Regional and Language Options
Customize settings for the display of languages, numbers, times, and dates.

Figure A3, “Date, Time, Language and Regional Options”

(4) Select the second page, “Languages”, and check the option “Install files for East Asian languages”.

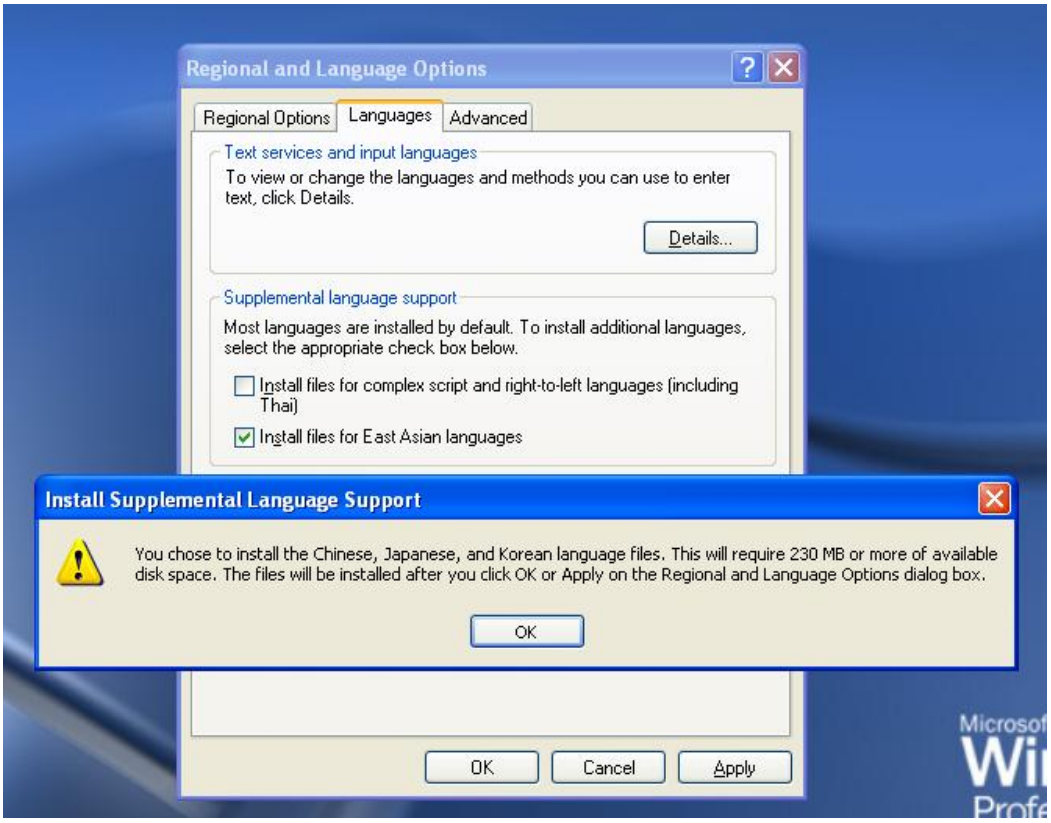

Regional and Language Options
Regional Options
Languages
Advanced
Text services and input languages
To view or change the languages and methods you can use to enter text, click Details.
Details...
Supplemental language support
Most languages are installed by default. To install additional languages, select the appropriate check box below.
Install files for complex script and right-to-left languages (including Thai)
Install files for East Asian languages
Install Supplemental Language Support
You chose to install the Chinese, Japanese, and Korean language files. This will require 230 MB or more of available disk space. The files will be installed after you click OK or Apply on the Regional and Language Options dialog box.
OK
OK
Cancel
Apply

Figure A4, Check the option to install East Asian languages.

(5) Press “OK” for copying the necessary files. During this step, the system may ask user to put the Windows XP CD into your CDROM.

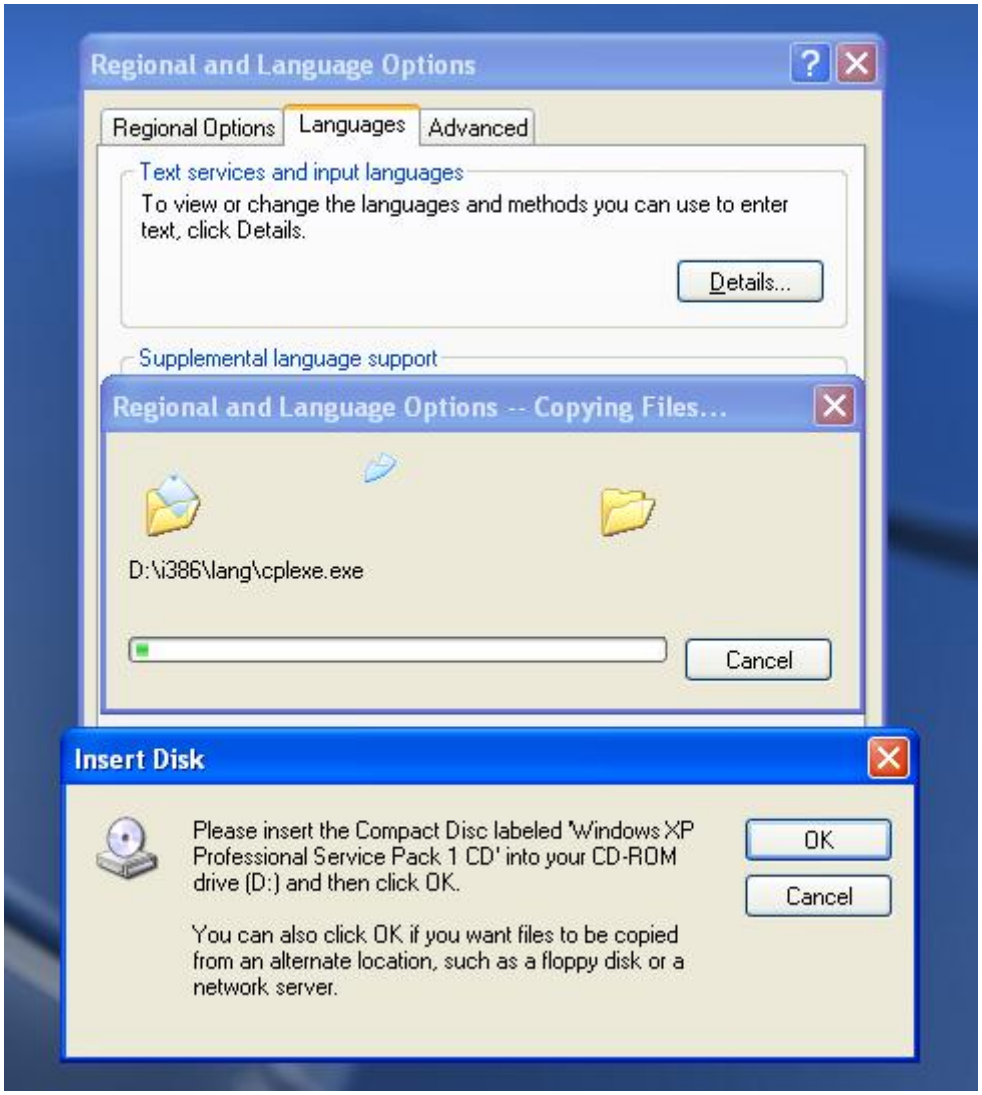

Regional and Language Options
Regional Options
Languages
Advanced
Text services and input languages
To view or change the languages and methods you can use to enter text, click Details.
Details...
Supplemental language support
Regional and Language Options -- Copying Files...
D:\i386\lang\cplexe.exe
Cancel
Insert Disk
Please insert the Compact Disc labeled 'Windows XP Professional Service Pack 1 CD' into your CD-ROM drive (D:) and then click OK.
You can also click OK if you want files to be copied from an alternate location, such as a floppy disk or a network server.
OK
Cancel

Figure A5, Put the XP CD into system for copying necessary files.

(6) After finish copying files, the system needs to reboot.

Change Regional Options
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

Figure A6, System requires reboot after installing East Asian languages.

(7) After Windows XP restarts, X-1 PC SUITE should work as usual.

Chapter 5 License Key

* License Key for loading more currencies to the device software or changing model type

To utilize software license key to load more currencies into a single or multiple currencies of working X-1 device, please follow the below steps:

(1) Install X-1 PC Suite to your system followed by connecting a working X-1 device with PC using of USB cable provided with the device.
(2) After turning power on to X-1, the below information will be displayed. For example, it shows the connected device is “X-1 / NC5100-B02NE” and Current Currency Set as USD, EUR, which means it is a X-1 machine equipped with USD and EUR detection.
(3) Please click on the “Upgrade Model” icon.

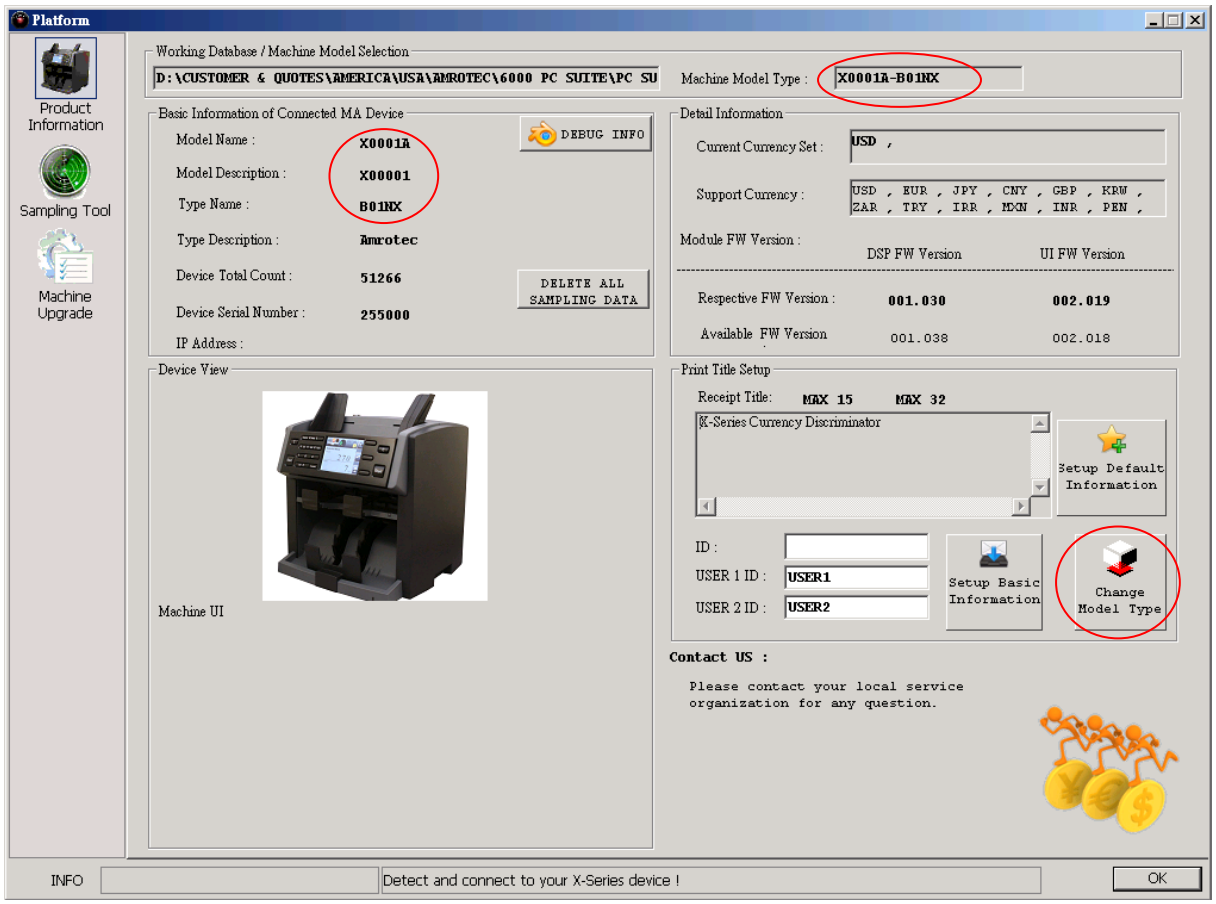


Figure 5-10, “Connected Device” shows “X-1 / X0001A-B02NX”

(3) You will be asked to enter the license key, followed by clicking "OK" button. License key will be provided to you by AMROTEC as it is necessary. Multiple currencies are an option and charged.

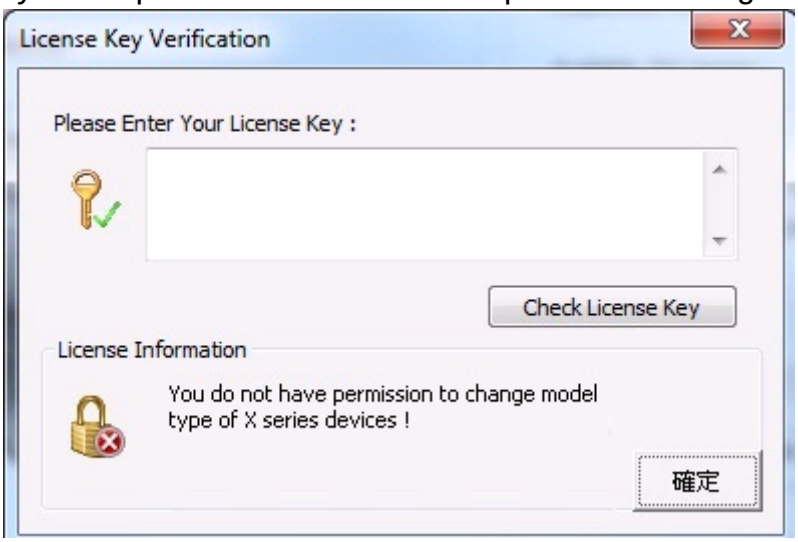

License Key Verification
Please Enter Your License Key :
Check License Key
License Information
You do not have permission to change model type of X series devices !
確定

Figure 5-11, License Key Verification

(4) The software and license key are given by AMROTEC or factory for loading more currencies to X-1 discriminator as an optional paid feature.

In such case, just enter the license key into the dialog shown above and click on the "Check License Key".

If the license key is correct, the below dialog box will show as below:

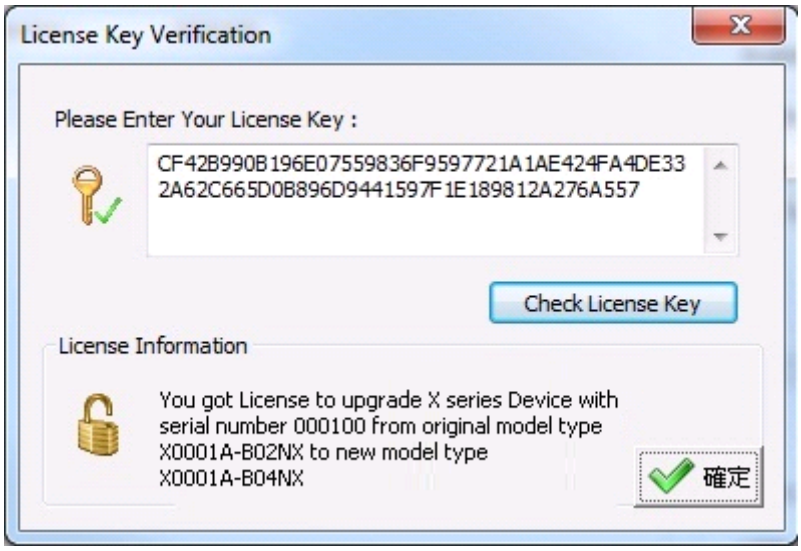

License Key Verification
Please Enter Your License Key :
CF42B990B196E07559836F9597721A1AE424FA4DE33
2A62C665D0B896D9441597F1E189812A276A557
Check License Key
License Information
You got License to upgrade X series Device with serial number 000100 from original model type X0001A-B02NX to new model type X0001A-B04NX
確定

Figure 5-12, “License Information”

(5) After clicking OK, if the serial number of the connected X-1 device is within the range of license key, the below message box will appear and prompt user to confirm the converting command.

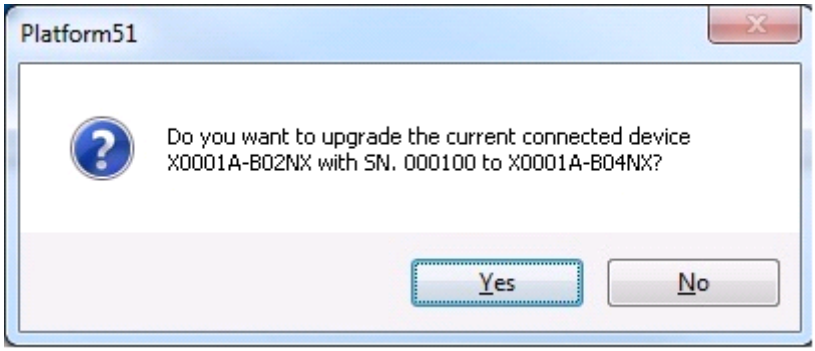


Figure 5-13, confirm the converting command

(6) Click “Yes” to confirm and the connected X-1 device will be converted into the model type applied. See below example where the X-1 machine is converted into NC5100-B04NE which supports 12 currencies.

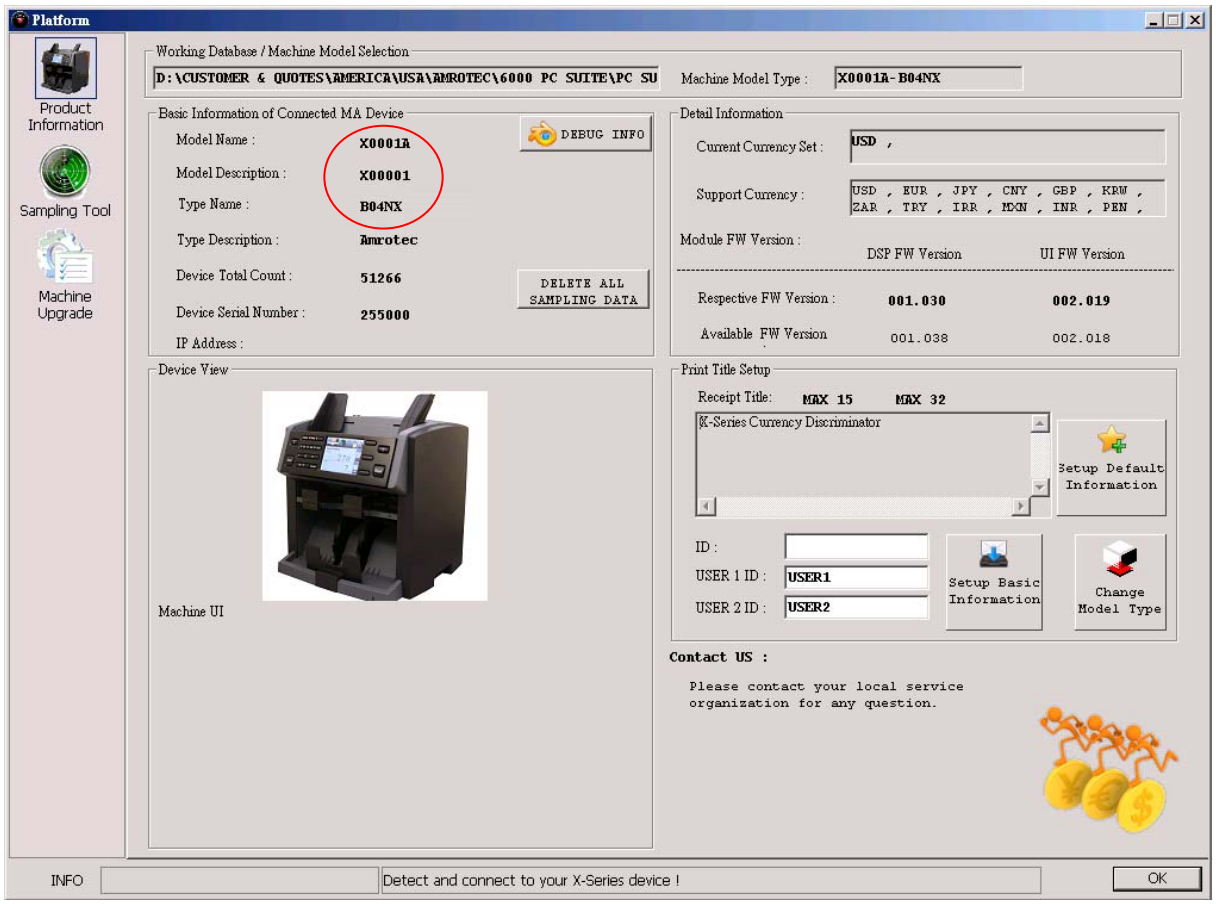


Figure 5-14, Connected Device shows “NC5100-B04NE”

(7) Upgrade all the system software as follow,

The first software to upgrade is “User Interface Upgrade”, followed by second software “Firmware Upgrade” and then third as “Detection Module Upgrade”.

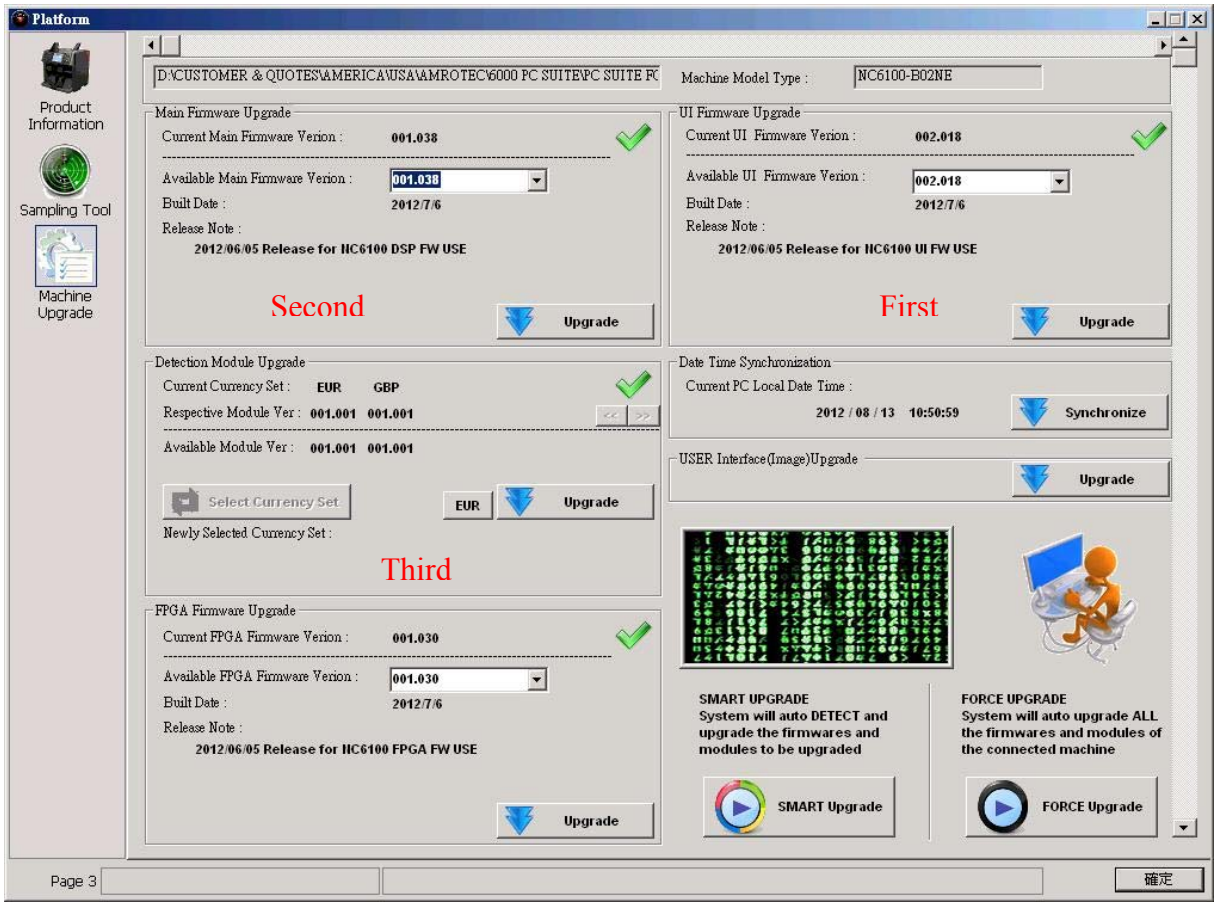


Figure 5-15, System Upgrade

(8) Choose the currency set according to the model type that customer selected and paid for.

At this example, the X-1 device is converted into B04NX.

It means that this X-1 device can be loaded with 4 kinds of currency detection module.

By clicking "Select Currency Set", all currencies will be shown as below that X-1 is supported.

Please choose the currencies and click "OK".

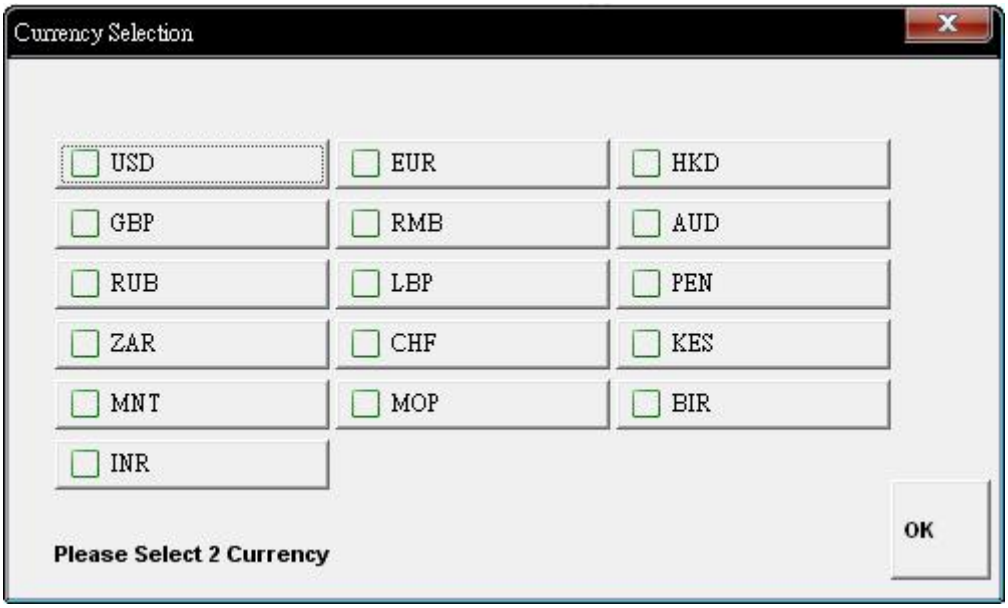


Figure 5-16, Currency Combo Selection Dialog

(9) The currency combo is shown as below in X-1 PC SUITE....

Click “Upgrade Module” and then “User Interface Upgrade”. After disconnecting PC connection and restarting the machine, X-1 device will be equipped with newly added currencies.

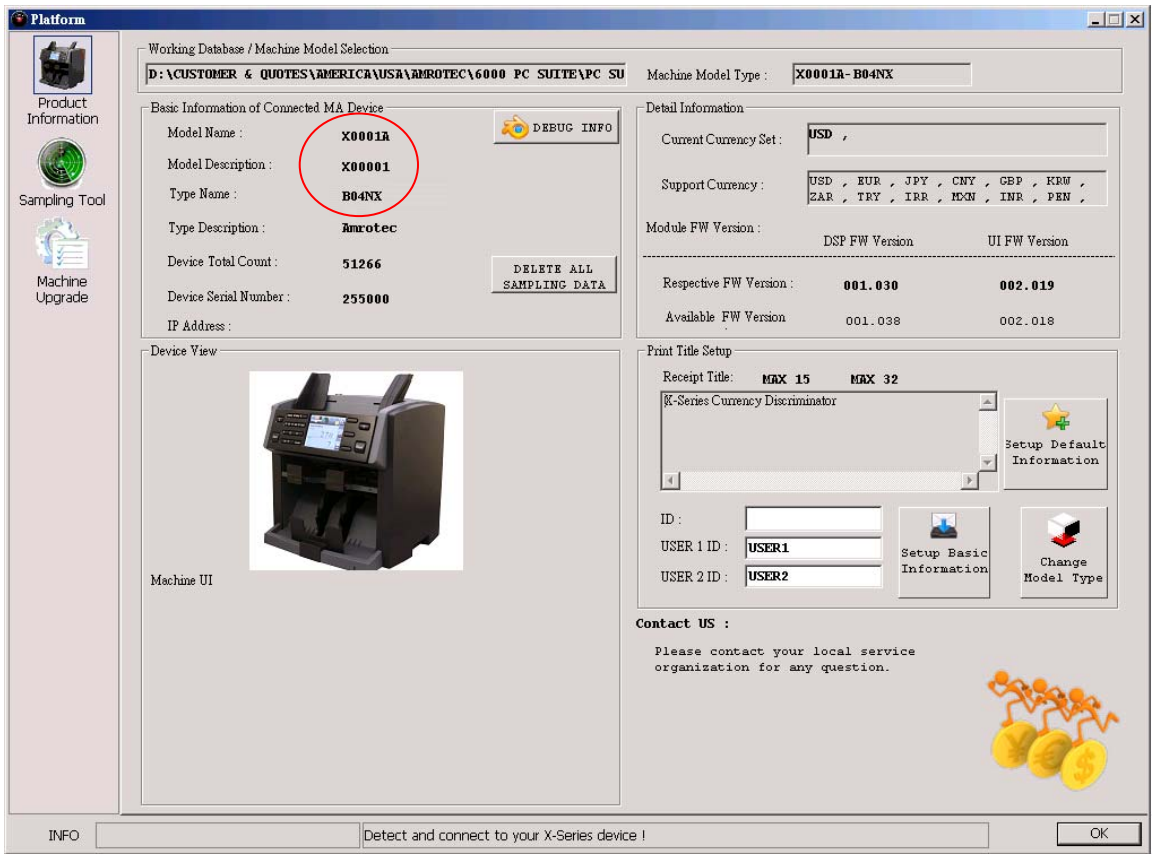


Figure 5-17, New Currency Set

Chapter 6 X-1 PC SUITE on Window Vista/Win7

When users wish to operate X-1 PC SUITE on windows system Vista/Win7, it's necessary to change the system setting before operation.

Please follow the instructions as below.

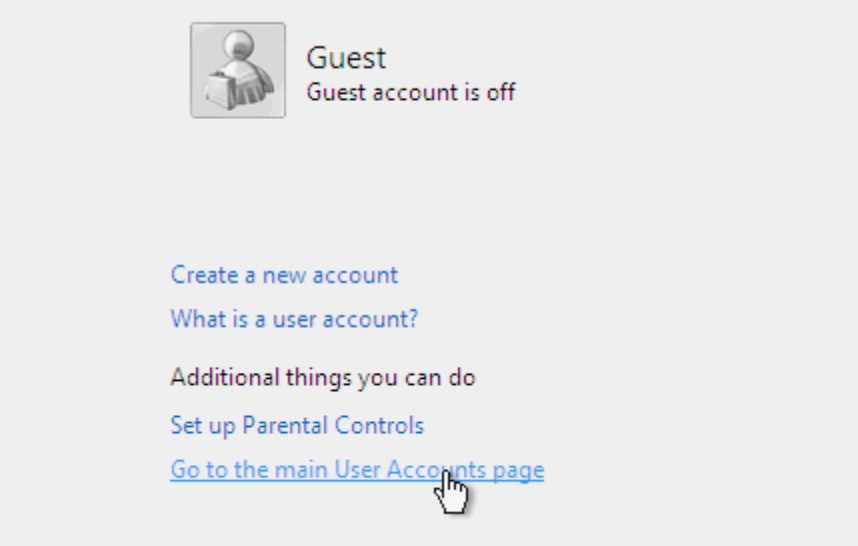
★ Windows Vista:

(1) Open Control Panel.

(2) Locate the item "Under User Account and Family Safety" settings and click on the "Add or remove user account"

(3) Click on one of the user accounts, for example, you can use the Guest account.

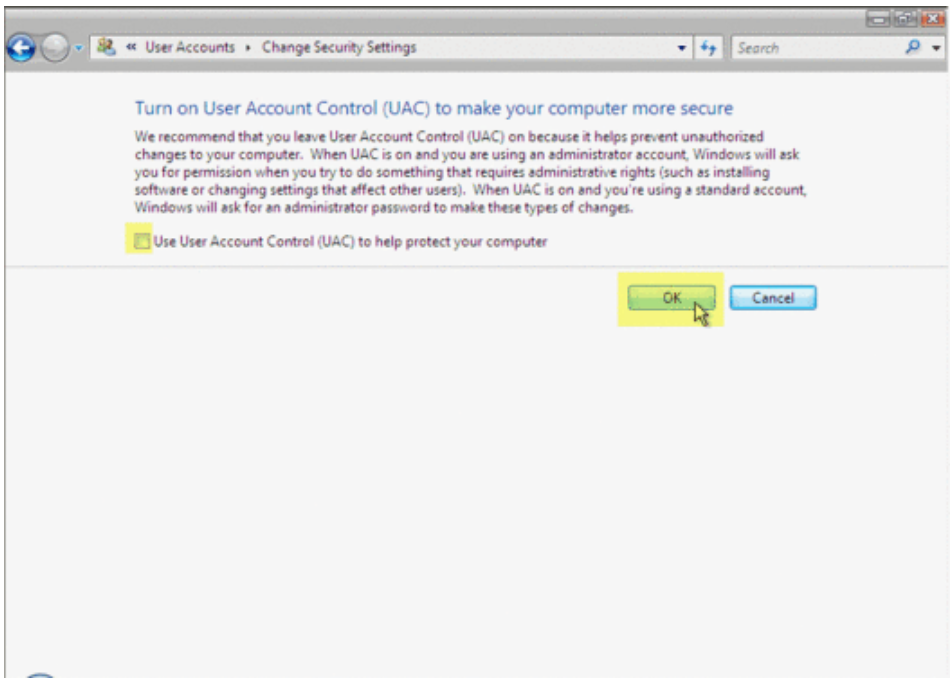
(4) Under a user account, click on the "Go to the main User Account page" link.


Guest
Guest account is off
Create a new account
What is a user account?
Additional things you can do
Set up Parental Controls
Go to the main User Accounts page

(5) Under "Make changes to your user account" click on the "Change security settings" link.

(6) In the "Turn on User Account Control (UAC) to make your computer more secure" click to unselect the "Use User Account Control (UAC) to help protect your computer".

(7) Click on the Ok button.


User Accounts ▸ Change Security Settings
Search
Turn on User Account Control (UAC) to make your computer more secure
We recommend that you leave User Account Control (UAC) on because it helps prevent unauthorized changes to your computer. When UAC is on and you are using an administrator account, Windows will ask you for permission when you try to do something that requires administrative rights (such as installing software or changing settings that affect other users). When UAC is on and you're using a standard account, Windows will ask for an administrator password to make these types of changes.
Use User Account Control (UAC) to help protect your computer
OK
Cancel

(8) Users will be prompted to reboot the PC system.

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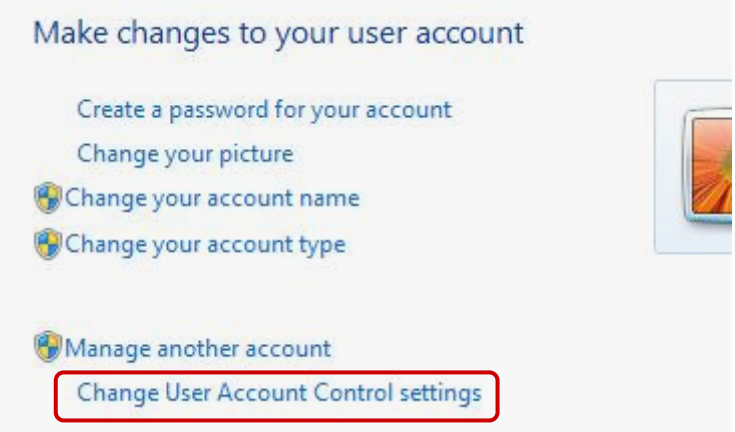
★ Windows Win7:

(1) Go to Start Menu -> Control Panel -> User Accounts and Family Safety -> User Account.

(2) Click on User Account Control settings link.


Make changes to your user account
Create a password for your account
Change your picture
Change your account name
Change your account type
Manage another account
Change User Account Control settings

(3) Slide the slider bar to the lowest value (towards Never Notify), with description showing “Never notify me”.

Choose when to be notified about changes to your computer
User Account Control helps prevent potentially harmful programs from making changes to your computer.
Tell me more about User Account Control settings
Always notify
Never notify me when:
Programs try to install software or make changes to my computer
I make changes to Windows settings
Not recommended but can be selected if you use programs that are not certified for Windows 7 because they do not support User Account Control
Never notify

(4) Click OK to make the change effective.

(5) Restart the computer to turn off User Access Control.

---------- END ----------

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